

**The NEWSLETTER is a publication of the Canadian Mathematics Education Study Group**

CMESG is a group of mathematicians and mathematics educators who meet annually to discuss mathematics education issues at all levels of learning. The aims of the Study Group are:

- 1) to study the theories and practices of the teaching of mathematics
- 2) to promote research in mathematics education
- 3) to exchange ideas and information about all aspects of mathematics education in Canada
- 4) to disseminate the results of its work.

**Ce BULLETIN est une publication du Groupe canadien d'étude en didactique des mathématiques**

Le GCEDM est composé de personnes œuvrant en mathématiques et en didactique des mathématiques et qui se réunissent une fois par année pour étudier diverses questions relatives à l'enseignement des mathématiques à tous les niveaux. Les buts du Groupe sont les suivants:

- 1) susciter une réflexion critique sur la théorie et la pratique de l'enseignement des mathématiques
- 2) encourager la recherche en didactique des mathématiques
- 3) faciliter l'échange d'idées et d'information sur tous les aspects de l'éducation mathématique au Canada
- 4) faire connaître les résultats de ses travaux.

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## PRESIDENT'S MESSAGE DU PRÉSIDENT

**Olive Chapman**

Our June 2017, 41<sup>st</sup> annual meeting in Montreal is behind us, but the record attendance with a significant number of first-timers has ongoing implications for future meetings regarding maintaining the uniqueness of the Group [CMESG]. The unusually large number of posters during the Gallery Walk is an indication of how the focus could shift from a *Study Group*, discussion-oriented, community-based format, to a traditional conference format with individual presentations. While we encourage members to share their research and teaching experiences, it is important that this be done in a way that supports meaningful group discussion around specific topics of interest. The executive is working on a process to mentor new members and remind ongoing members about the reason our organization is called a *Study Group* and the expectation of their participation during the annual meeting.

The annual meeting is also a point of transitions and continuation of CMESG executive members. On behalf of our Group, I sincerely thank them for their outstanding service that included planning and organizing the scientific program and registration process of the 2017 Montreal meeting. Special thanks to our outgoing treasurer and membership secretary Viktor Freiman (Université de Moncton)

for his invaluable service to the Group. He has meticulously managed the finances of the Group for three consecutive two-year terms. He continues to be actively involved in serving the group as a member of the nomination committee. Thanks to Miroslav Lovric (McMaster University) for his dedication to the Group, serving as the mathematician and the program coordinator for three consecutive two-year terms. Thanks to Richelle Marynowski (University of Lethbridge) who ended a one-year term as member-at-large for her helpful contributions. Thanks to Caroline Lajoie (Université du Québec à Montréal) who continues as vice-president and Lisa Lunney Borden (St. France Xavier University) who was re-elected for another 2-year term and continues as secretary for their ongoing dedicated and valued service. In addition to the executive, I offer special thanks to Annie Savard, Limin Jao and their local organizing team at McGill University for hosting another fantastic conference.

Our executive was enriched by three new members who have already embraced their roles with enthusiasm. Thanks to our new treasurer and membership secretary, Manon LeBlanc (Université de Moncton), for taking on this demanding role. Thanks to Jamie Pyper (Queen's University) and Richard Hoshino (Quest University) for accepting to join our executive as members-at-large for a one-year term. Jamie is serving as program coordinator and Richard as chair of the local organizing committee for the 2018 annual meeting.

Another important transition in our leadership team at the 2017 annual meeting is the proceedings editor. Special thanks to Susan Oesterle (Douglas College) who served as an editor since 2008, taking on the lead from 2012, for the invaluable and outstanding service in producing the proceedings of the annual meeting and handling all matters associated with it. A sincere welcome to Jennifer Holm (Wilfrid Laurier University) who was appointed as the new editor.

Our 42<sup>nd</sup> annual meeting is in breathtakingly scenic Squamish, BC, at Quest University, June 1 to 5, 2018. Richard Hoshino is enthusiastically looking forward to hosting us. The executive is working diligently on the program for this meeting. We are grateful for all the interesting suggestions from members for speakers and working group topics and leaders. We have confirmed our two

plenary speakers. Dr. Donald Violette of the Université de Moncton is the mathematician plenary and Dr. Merrilyn Goos of the University of Limerick, Ireland is the mathematics education plenary. We will provide you with a preview of the program in early January 2018 on our website [[www.cmesg.org](http://www.cmesg.org)].

As our representative on the Canadian Mathematical Society [CMS] education committee, on behalf of our Group, I will like to congratulate a past and a current CMESG executive member on their CMS awards. Bernard Hodgson is the recipient of the 2017 Excellence in Teaching Award and Richard Hoshino is the recipient of the 2017 Adrien Pouliot Award for significant and sustained contributions to mathematics education in Canada.

As a reminder, you are always invited to share any comments and concerns via any member of the executive for us to address.

Best wishes for a wonderful holiday season (2017).

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Notre 41<sup>e</sup> rencontre de juin 2017 à Montréal est maintenant derrière nous, mais le record de participation et le nombre important de nouveaux participants auront des implications pour nos futures rencontres en ce qui a trait à la préservation du caractère unique de notre Groupe (GCEDM). Le nombre inhabituellement élevé d'affiches présentées à la Galerie mathématique laisse croire que les rencontres annuelles de notre Groupe d'Étude, basées sur la discussion et centrées sur notre communauté, pourraient se transformer en colloques de format plus classique, essentiellement composés de présentations. Bien que nous encourageons les membres du groupe à partager leur expérience en recherche et en enseignement, il est important que cela soit fait de façon à conserver des discussions de groupe approfondies autour de sujets spécifiques. Le comité exécutif réfléchit actuellement à une façon d'accompagner les nouveaux membres, de même qu'à un moyen de rappeler aux membres la raison pour laquelle notre organisation se nomme *Groupe d'Étude* et les attentes quant à leur participation à la rencontre annuelle.

La rencontre annuelle marque également un moment de transition ou de continuation pour les membres du comité exécutif du GCEDM. Au nom

de notre Groupe, je les remercie sincèrement pour leur travail exceptionnel à la planification et à l'organisation du programme scientifique, de même qu'à l'organisation des inscriptions à la rencontre tenue à Montréal en juin dernier. Un merci spécial à notre trésorier et secrétaire sortant Viktor Freiman (Université de Moncton) pour son travail inestimable. Il a géré méticuleusement les finances du Groupe, et ce, pour 3 mandats consécutifs de deux ans. Il continue à s'impliquer dans le Groupe en tant que membre du comité de nomination. Merci à Miroslav Lovric (McMaster University) pour son implication au sein du Groupe en tant que mathématicien et responsable du programme pendant trois mandats consécutifs de deux ans. Merci à Richelle Marynowski (University of Lethbridge) qui termine un mandat d'une année comme membre de l'exécutif. Merci à Caroline Lajoie (Université du Québec à Montréal), qui poursuit son mandat en tant que vice-présidente, et à Lisa Lunney Borden (St-France Xavier University), réélue pour un autre mandat de deux ans à titre de secrétaire, pour leur implication dédiée et appréciée. En plus du comité exécutif, je remercie particulièrement Annie Savard, Limin Jao et leur équipe d'organisation locale de l'Université McGill pour avoir organisé une autre rencontre formidable.

Notre comité exécutif accueille trois nouveaux membres qui ont déjà commencé leur mandat avec enthousiasme. Merci à notre nouvelle trésorière et secrétaire responsable de l'adhésion, Manon LeBlanc (Université de Moncton), de prendre le relais à ce poste exigeant. Merci à Jamie Pyper (Queen's University) et Richard Hoshino (Quest University) d'avoir accepté de se joindre au comité exécutif en tant que membres sans affectation particulière pour un mandat d'un an. Pour l'année à venir, Jamie est responsable du programme de la rencontre de 2018 et Richard est responsable du comité d'organisation local.

Une autre transition importante a eu lieu lors de la rencontre de 2017. Un merci spécial à Susan Oesterle (Douglas College), impliquée dans l'édition des actes depuis 2008 et éditrice depuis 2012, pour son implication remarquable et inestimable à la production des actes. Un bienvenu sincère à Jennifer Holm (Wilfrid Laurier University) qui prend dorénavant la relève à titre d'éditrice.

Notre 42<sup>e</sup> rencontre annuelle aura lieu à Quest University dans l'époustouflante ville de

Squamish, Colombie-Britannique, du 1<sup>er</sup> au 5 juin 2018. Richard Hoshino a très hâte de nous y accueillir ! Le comité exécutif travaille rigoureusement au programme de la prochaine rencontre. Nous sommes reconnaissants pour toutes les suggestions des membres, que ce soit pour des conférenciers pléniers, pour des thèmes de groupes de travail ou encore pour des animateurs de groupes de travail. Les deux conférenciers pléniers en 2018 seront Dr Donald Violette, mathématicien à l'Université de Moncton, et Dr Merrilyn Goos, didacticienne des mathématiques à l'Université de Limerick en Irlande. Nous vous proposerons un aperçu du programme sur notre site internet [www.cmesg.org] au début du mois de janvier 2018.

En tant que représentante du Groupe au comité d'éducation de la Société Mathématique du Canada [SMC], je tiens à féliciter un ancien membre du comité exécutif du GCEDM et un membre actuel de ce même comité pour leur prix de la SMC. Bernard Hodgson est le lauréat du prix d'excellence en enseignement 2017 et Richard Hoshino est le lauréat du prix Adrien Pouliot 2017 pour une contribution significative et soutenue à l'éducation mathématique au Canada.

Je vous rappelle également que vous êtes en tout temps invités à partager vos commentaires et suggestions avec les membres du comité exécutif. Mes meilleurs vœux pour la saison des Fêtes (2017) !

## NOTICES / AVIS

December 8th -11th, 2017



The Canadian Mathematical Society (CMS) invites the mathematical community to the 2017 CMS Winter Meeting in Waterloo, Ontario from December 8-11. All meeting activities are taking place at the Delta Hotel (110 Erb St W, Waterloo, ON N2L 0C6) and the University of Waterloo (200 University Avenue West, Waterloo, ON, Canada N2L 3G1).

**Education Session:** Using Digital Assets in Mathematics Education and Outreach. **Org:**



Barbara Forrest and Brian Forrest (University of Waterloo)

June 1st - June 5th, 2018

## CANADIAN MATHEMATICS EDUCATION STUDY GROUP 42ND ANNUAL MEETING



January 1st, 2018

### Position Announcement:

Post-doctoral Scholar in Mathematics Education

**Mentor:** Professor Jo Towers, Werklund School of Education, University of Calgary, AB, Canada.

**Job ID:** 14297

**Duration:** 2 years

**Start Date:** 1<sup>st</sup> January, 2018 (Negotiable)

**Salary:** \$67,000.00 per year (plus benefits), plus a research stipend of \$2,500 per year

For details, please see:

<http://careers.ucalgary.ca/jobs/2343342-post-doctoral-fellowship-mathematics-education-werklund-school-of-education>

December 20th, 2017



## Fifth Annual International Conference on Reciprocal Learning Between Eastern and Western Education & Conference on Deep Learning and Classroom Research

Call for Papers: [Submission deadline extended to December 20<sup>th</sup>, 2017](#)

For details, please see:

<https://openconf.org/reciprocallearning/openconf.php>

## MEMBERS' ACTIVITIES / ACTIVITÉS DES MEMBERS

### ON FLM HOUSE STYLE, PART 1

David A Reid

The last sentence of the *Suggestions for writers* on the inside back cover of recent issues of *For the Learning of Mathematics* (FLM) is “Current house style may be inferred from the articles in 31(1) and later issues.” It is an invitation to writers to read previous issues of FLM, not only for the valuable ideas contained in its pages, but also to become sensitised to the ‘hand-crafting’ done by the editor in preparing each article. I don’t know how many authors read this sentence, but at least a few do, which I appreciate.

Editors of FLM are concerned not only with the content of articles, but also with their presentation, and so the copy editing and layout decisions, which are outsourced by editors of the ‘industrial’ journals, are made by the editor of FLM her or himself. This approach could be criticised, as professionals who do copy editing and layout every day, and who (presumably) have some training in their craft, ought to be able to produce a more consistent level of quality than the talented amateurs editing FLM. On the other hand, this procedure allows for the style of FLM to evolve, as each editor makes subtle (or not so subtle) changes reflecting her or his biases, quirks and aesthetic. Not only the editor makes changes, as many articles present challenges that have not been faced before, and then the authors’ own decisions about how to present their ideas may be adopted, and become part of the current house style. The style of FLM can only be ‘inferred’ not specified, as it is a moving target.

The sentence about current house style first appeared in 17(3), the first issue edited by David Pimm, and each new editor has updated the starting issue to their first. I have not yet done so, as I am still learning what parts of the house style feel right to me, and what parts might change. As a new editor I lack the intuitions acquired by

Richard Barwell over his six years as editor, and so I know that my first issue contains many deviations from current house style, only a few of which were intentional. Perhaps someone can invent a drinking game based on finding the mistakes, which would help me feel a little bit better about them. In an effort to support my feeble memory while I wait for FLM house style to work its way into my intuitions, or for it to adapt to my intuitions, I have written some notes to myself, and I have decided to share some of these notes with others in the pages of the CMESG newsletter.

I have chosen this venue, rather than, for example, the FLM web site, because I do not wish to change the existing dynamic of having an ever-evolving, but nonetheless consistent, house style. I do not want to 'fix' (in any sense) the house style by writing about it. Instead, I want to reflect on it in public way so that some of the thinking I (and the previous editors) have done can be considered, and critiqued, by a wider audience. If I write here that, "Current house style is to write authors' names in all caps", I do not do so with the intent to force authors to conform with this style from now on. If k. d. lang submits an article and wants her name in lower case, that's a topic for discussion, not resolution by reference to a rule book.

## References

I've decided to start with the way references are written, because that is an aspect of academic writing style that most people are aware of, and one that illustrates how FLM style evolves while remaining true to some principles. It also lets me mention that a good goal is to have as few references as possible in an FLM article. Long 'book lists' were complained about in early issues of FLM, and too many (Name, Dates) break up the flow of the text. There are some kinds of writing where being able to track back sources is vital (medicine, for example) but in a journal focused on ideas there are better ways to acknowledge others' influences. Remember also that FLM readers are a well educated group; one can refer to "Vygotsky's *Zone of Proximal Development*" without a reference, as most readers know where to look and the rest know how to look things up in Wikipedia.

Current house style for references is 'APA without the silly bits'. In other words, in text references are done by listing the author and year of publication in (Name, Date) style, which is

usually enough to identify the work, and is also (sometimes) useful information to have in the text. If more information, such as the title of the work, might be useful to have in the text, it can be made part of the sentence and the (Name, Date) dispensed with.

As Wittgenstein wrote, in *Philosophical Investigations* (§242), "If language is to be a means of communication there must be agreement not only in definitions but also (queer as this may sound) in judgments."

In the reference list the actual book might, or might not, need to be included. If it exists in many different versions and the exact formulation matters, then a reference to the source used should be made, but if any copy of the book would do, then it can be left out of the reference list.

If a book is included in the reference list, the citation should look like this:

Reid, D. & Knipping, C. (2010) *Proof in Mathematics Education: Research, Learning and Teaching*. Rotterdam: Sense.

Note the silly bits of APA that have been left out:

- No commas preceding ampersands.
- No full stops (periods) after the year in parentheses.
- No state or country abbreviation for publisher's cities that are unambiguous (How many Rotterdams are there with major publishing houses?) Note that 'London, UK', doesn't need 'UK' but 'London, ON', needs 'ON'. Always specify which 'Cambridge' you are referring to, but as far as I am concerned there is only one 'Oxford'. Oxford, NS, produces blueberries, not books.

Journal references are a little bit more complicated, but the same principle applies. All the necessary information should be included, but no extra punctuation or trivia.

Knoll, E. & Reid, D. (2007) *Discussing beauty in mathematics and in art*. *For the Learning of Mathematics* 27(3), 31–33.

A longstanding marker of FLM style is that journal volume numbers are printed in **bold**. There is no comma after the title of the journal, and I suppose it could be argued that the one after the volume and issue numbers is also not needed. But it's there for now. Titles of books and journals are capitalised as titles, but articles and book chapters are capitalised as sentences. One thing that changed along the way is that the titles of journal

articles used to be written in single quotes, but that seems like 'extra punctuation' to me. At about the same time, titles of books changed from sentence case to title case, and I am not sure how I feel about that. I can see the logic of marking complete works (journals and books) off from parts of them (articles and chapters), but the lower case titles for books prior to 31(1) have a nice look to them, and the use of italics already marks them as special.

Book chapter references differ from APA in that the initials of the book's authors are written after their names (so it looks quite similar to the way it would be listed if the entire book were being cited).

Reid, D. & Zack, V. (2009) *Aspects of teaching proving in upper elementary school*. In Stylianou, D., Blanton, M. & Knuth, E. (Eds.) *Teaching and Learning Proof Across the Grades*, pp. 133–146. New York: Routledge.

It used to be that the chapter title was followed by a comma and 'in' in lowercase. As in this example FLM house style is now more like APA in that the chapter title is followed by a full stop and 'In' is capitalised. In this case the principle of 'no extra punctuation or trivia' doesn't make a distinction, and as people are used to APA style it probably makes sense to follow it unless there is a reason not to. Does someone out there have strong feelings about this?

Everything else in the reference list can be formatted by starting with APA and then removing the silly bits by following the principle of 'no extra punctuation or trivia'. I'll be going over it later anyway, making it conform to whatever I think current house style is.

## Envoi

I claim this is 'Part 1' but I have no idea if the newsletter editor, the newsletter readers, or I will want a long series of notes on this topic. I suspect I will manage to write another one, which will justify the 'Part 1' in the title of this one. If you are reading this then the newsletter editor has decided to print them, at least for now. Future topics I have in mind are: dashes, headings, quote marks, transcripts, and italics. Let me know if there are other topics you'd like to read about.

## NEWS FROM THE EXECUTIVE / DES NOUVELLES DE L'EXÉCUTIF

### CMESG/FLM elections 2017: Call for nominations

The two-year terms of Olive Chapman (President) and Caroline Lajoie (Member) on the Executive Committee will be ending May 31, 2018. At the same time, the four-year terms of France Caron and Ami Mamolo as Directors of the FLM Publishing Association will be coming to an end. You are invited to submit names of candidates for these positions to David Reid (dreid@uni-bremen.de), chair of the Nomination Committee, or Viktor Freiman (viktor.freiman@umoncton.ca), member of the Nomination Committee, no later than January 30, 2018. For each nomination, please indicate whether it is for the position of President or member of the CMESG Executive or Director of the FLM Publishing Association. It is not necessary at this time to verify if the individuals you wish to nominate are willing to run for these positions.

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### Élection 2017 GCEDM/FLM: Appel de candidatures

Les mandats de deux ans d'Olive Chapman (présidente) et de Caroline Lajoie (membre) au sein de l'Exécutif viennent à l'échéance le 31 mai 2018. En même temps, les mandats de 4 ans de France Caron et d'Ami Mamolo au bureau de direction de la revue FLM arrivent à l'échéance. Vous êtes invités à soumettre, avant le 30 janvier 2018, les noms des candidates et des candidats pour ces postes à David Reid (dreid@uni-bremen.de), président du comité de nomination ou à Viktor Freiman (viktor.freiman@umoncton.ca), membre du comité de nomination. Pour chaque nomination veuillez indiquer s'il s'agit d'une mise en candidature pour le poste de président ou de membre du comité exécutif du GCEDM, ou de membre du bureau de direction de la revue FLM. Il n'est pas nécessaire, à cette étape, de vérifier si les personnes que vous nommez acceptent d'être candidate ou candidat pour ces postes.

## CMESG EXECUTIVE / L'EXÉCUTIF DU GCEDM

The members of the executive extend an invitation to you to contact us about any item of interest. If you have something you want to suggest, if you have a concern you wish to raise, if you want more information, etc., please let one of us know. In order to be of service to the membership, we need to be aware of what your interests are.

Les membres du Comité exécutif vous invitent à leur faire part de votre point de vue concernant n'importe quel aspect de la vie du GCEDM. Que ce soit pour transmettre suggestions ou commentaires, ou encore pour être mieux informé, n'hésitez pas à entrer en contact avec l'un d'entre nous. En nous faisant connaître vos intérêts, vous nous aidez à mieux vous servir.

### **Olive Chapman**

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